



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2003WY13B

Title: Conveyance Losses and Travel Times of Reservoir Releases Along the Bear River from Woodruff Narrows Reservoir to Cokeville Wyoming

Project Type: Research

Focus Categories: Agriculture, Hydrology, Irrigation

Keywords: Agriculture, Conveyance Systems, Hydrogeology

Start Date: 03/01/2003

End Date: 02/28/2006

Federal Funds: \$0

Non-Federal Matching Funds: \$95,213

Congressional District: 1

Principal Investigators:

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Abstract

This study will measure conveyance losses on the Bear River between Woodruff Narrows Reservoir, WY and Cokeville, WY. There are three main reasons why these measurements should be done. First, it will allow irrigators near Cokeville WY to use Woodruff Narrows storage water. Second, it will provide better understanding of conveyance losses and return flow timing and thus, allow downstream Wyoming irrigators to better plan for utilize reservoir releases. Third, information obtained in this study will be useful in future decision-making related to the development of a wildlife refuge that has been approved for this part of Wyoming. Stream flow data and the hydrologic budget approach will be used to determine conveyance losses for the Bear River. Through this analysis, major mechanisms influencing flow will be determined and quantified. The method to be used requires the comparison of quantities for inflow and outflow in order to determine conveyance losses. These measurements will be obtained from USGS stream gages and from continuous stage recorders to be installed on the major diversions and tributaries over this reach of the Bear River.